**Program Code**

#include<stdio.h>

int C[3][3];

//int w[3][3]={{0,1,2},{1,2,0},{2,0,1}};

//int b[3][3]={{1,0,2},{1,2,0},{0,1,2}};

int w[3][3]={{0,1,2},{2,1,0},{0,2,1}};

int b[3][3]={{2,0,1},{1,0,2},{2,1,0}};

void rejection(int ,int);

int main()

{

int i=0;

int y;

int j;

int t;

int x;

int d;

int p;

while(i<3){

j=0;

while(j<3){

printf("\n\ni is %d\n\n", i);

// j=0;

printf("\n the %d boy proposes the %d girl",i,b[i][j]);

printf("\n moving to that girl");

t=b[i][j];

printf("\n now the %d girl has the following choices",t);

for(x=0;x<3;x++)

{

if(w[t][x]==i)

{

p=x;

}

}

if(C[t][0]!=1)

{

C[t][2]=i;

printf("\n the %d girl will accept the proposal ",t);

printf("\n the people who get matched will be between %d %d",t,C[t][2]);

C[t][0]=1;

C[t][1]=p;

break;

}

else if(C[t][0]==1&&C[t][1]>p)

{

printf("\n the girl will forget her first match that is boy %d",C[t][2]);

d=C[t][2];

y=t;

C[t][2]=i;

C[t][1]=p;

rejection(d,y);

break;

}

else

{

j++;

printf("\nMoving to second girl\n");

continue;

}

//j++;

}

i++;

}

printf("\n the matches are");

printf("\n 0 %d ",C[0][2]);

printf("\n 1 %d ",C[1][2]);

printf("\n 2 %d",C[2][2]);

return(0);

}

void rejection(int d,int y)

{

printf("\n the %d boy got rejected ",d);

printf("\n no matter we will find another girl ");

int i=0;

int j;

int p;

int z;

int s;

int t;

while(i<3)

{

if(b[d][i]==y)

{

i++;

continue;

}

printf("\n the %d boy proposes the %d girl", d, b[d][i]);

t=b[d][i];

// now the girl other than one which rejected him he will try on those now

for(j=0;j<3;j++)

{

if(d==w[t][j])

{

p=j;

break;

}

}

if(C[t][0]!=1)

{

// that girl will accept the proposal

C[t][1]=p;

C[t][0]=1;

C[t][2]=d;

printf("\n the girl %d accepts %d",t,C[t][2]);

break;

}

else if(C[i][0]==1&&C[i][1]>p)

{

// the offer will be accepted

z=C[i][2];

s=i;// c[i][2] proposal will be rejected

C[i][1]=p;

C[i][2]=d;

rejection(z,s);

}

else

// if(C[i][0]==1&&C[i][1]<p)

// {

// i++;// move to another girl

// }

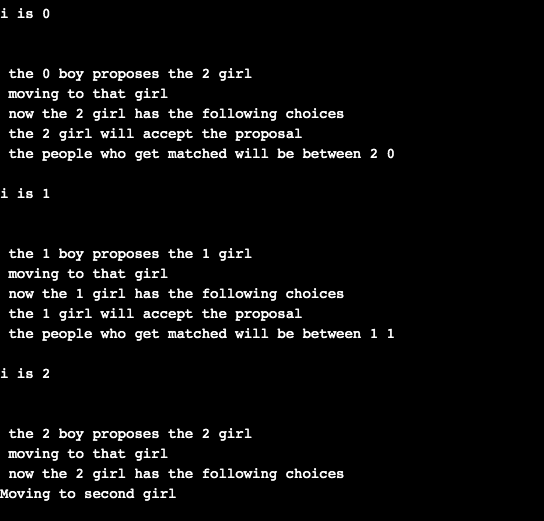
// else

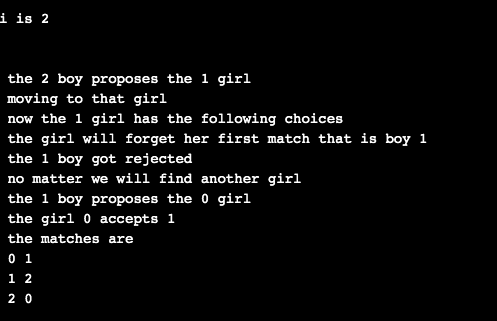
i++;

}

}

**Output**

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